

Amendments to the Claims

1. (Currently Amended) A method for stylizing video utilizing a processor and a memory, comprising:

performing a spatio-temporal segmentation analysis on the video to identify three dimensional volumes of contiguous pixels having a similar color;

receiving an interactive user input identifying a group of the three dimensional volumes of contiguous pixels, ~~the three dimensional volumes of contiguous pixels comprise segments~~, wherein the interactive user input comprises outlining a plurality of segments the three dimensional volumes of contiguous pixels,

wherein the outlining comprises a user manually drawing loop boundaries that physically encircle the three dimensional volumes of contiguous pixels, the three dimensional volumes of contiguous pixels extending forward and backward in time, the outlining being performed on a number of keyframes of the video, the number of keyframes being fewer than a total number of frames of the video,

and additional ~~segments~~ three dimensional volumes of contiguous pixels on frames of the video other than keyframes are identified by determining a relationship of the additional ~~segments~~ three dimensional volumes of contiguous pixels to the ~~segments~~ three dimensional volumes of contiguous pixels outlined on the keyframes; and

identifying the group of three dimensional volumes of contiguous pixels as a single semantic region;

deriving a set of two-dimensional edge sheets that represent the surface of the single three-dimensional semantic region, the edge sheets being derived from constituent surface representations of the three-dimensional semantic region, the constituent surface representations being annotated with measurable properties, the edge sheets being derived based on a value of the measurable properties, wherein the edge sheets are sliced at a frame time to extract a curved line configured to be rendered with the stylized video;

and associating the edge sheets with the single three-dimensional semantic region, wherein a thickness of the edge sheets is determined based on a user-input parameter in combination with criteria associated with the single three-dimensional semantic region, the criteria comprising a position of the edge sheet relative to an arclength of the edge sheet.

2. (Canceled)

3. (Original) The method of claim 1, wherein the spatio-temporal segmentation analysis comprises an anisotropic kernel mean shift segmentation procedure.

4 - 8. (Canceled)

9. (Previously Presented) The method of claim 1, wherein the relationship comprises at least a portion of the additional three dimensional volumes of contiguous pixels being enclosed by one or more of the three dimensional volumes of contiguous pixels outlined on the keyframes.

10. (Previously Presented) The method of claim 9, wherein the at least a portion comprises at least a majority of pixels of the additional three dimensional volumes of contiguous pixels.

11. (Original) The method of claim 1, further comprising applying a stylization to the single semantic region.

12. (Original) The method of claim 11, wherein the stylization comprises a mean shift technique.

13. (Previously Presented) A computer storage medium having computer-executable instructions for stylizing video stored thereon, the instructions comprising:
performing a spatio-temporal segmentation analysis on the video to identify three dimensional volumes of contiguous pixels having a similar color;
receiving an interactive user input identifying a group of the three dimensional volumes, wherein the interactive user input comprises manually outlining a plurality of three dimensional volumes of contiguous pixels;

identifying the group of three dimensional volumes as a single three-dimensional semantic region; and

deriving a set of two-dimensional edge sheets that represent the surface of the single three-dimensional semantic region, the edge sheets being derived from constituent surface representations of the three-dimensional semantic region, the constituent surface representations being annotated with measurable properties, the edge sheets being derived based on a value of the measureable properties, wherein the edge sheets are sliced at a frame time to extract a curved line configured to be rendered with the stylized video,

and associating the edge sheets with the single three-dimensional semantic region, wherein a thickness of the edge sheets is determined based on a user-input parameter in combination with criteria associated with the single three-dimensional semantic region, the criteria comprising a position of the edge sheet relative to an arclength of the edge sheet.

14. (Canceled)

15. (Previously Presented) The computer storage medium of claim 13, further comprising rendering the edge sheets as a curve between the single three-dimensional semantic region and another portion of the video.

16 - 17. (Canceled)

18. (Previously Presented) The computer storage medium of claim 13, wherein the criteria comprises a duration of existence of the single three-dimensional semantic region in the video.

19. (Previously Presented) The computer storage medium of claim 13, wherein the criteria comprises a movement of the single three-dimensional semantic region in the video.

20 - 25. (Canceled)